

REMARKS

No new matter is added by this amendment. The present application was filed on December 11, 2003 with original claims 1-48. By this amendment claims 1, 20, 23, 34 and 44 have been amended. The claims remaining in consideration are claims 1-48. Reconsideration is respectfully requested.

The Examiner objected to the claims for a number of informalities. Appropriate amendments to the claims and to the specification, i.e., figures, have been made therefore Applicants respectfully request that the objections to the drawings be withdrawn.

The Examiner objected to the disclosure because the reference number 72, which is mentioned in the specification, was not shown in the figures. Appropriate amendments to the figures have been made. Therefore Applicants respectfully request that the objection to the disclosure be withdrawn.

The Examiner objected to the drawings for the reasons set forth above. Applicants have amended the drawings to show the feature in Figure 6B and 6C. Therefore Applicants respectfully request that the objection to the drawings be withdrawn.

Claims 2 and 15 were rejected under 35 U.S.C. § 112 second paragraph. With respect to claim 2, the Examiner states that line 2 includes the limitation “the second axis” and suggests that there is insufficient antecedent basis for this limitation in the claim. However, Applicants respectfully note that claim 2 does not include the limitation. However Applicant, after review of the claims believes that the Examiner meant to reject claim 23. Claim 23 has been amended to provide for sufficient antecedent basis for element for the second axis element.

The Examiner notes that claim 15 recites “wherein the first and second axes are offset” and that claim 1 recites that “the first and second axis are parallel”. The Examiner states that when the first and second axes are parallel, “they are automatically offset” and therefore it is unclear of how claim 15 further limits the claimed subject matter. Applicants respectfully assert that to axes which lie on top of one another, are parallel but not necessarily offset. Therefore Applicants respectfully request that the rejection of claim 15 under 35 U.S.C. § 112 be withdrawn.

Claims 1-18 and 20-32 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,372,610 issued to Johansson. Claims 1 and 20 are independent claims. Claims 3-18 and 21-32 are ultimately dependent upon claims 1 and 20, respectively. Independent claims 1 and 20 have been amended to more clearly identify the subject matter Applicants regard as the invention.

The present invention as embodied in amended independent claim 1 sets forth a backspot facing tool having a shaft and a cutting element. The shaft has a first end, a second end and a recess located near the first end. The shaft has an outer circumference and is centered on a first axis. The cutting element has an inner portion and an outer portion. The cutting element is pivotally coupled to the shaft about a second axis and is movable between a closed position and an open position. The first and second axis are parallel. The cutting element further has an inner surface. The inner surface has a negative shear angle with a plane which is intersected by the first axis and the second axis as shown specifically in Figure 6B. The negative shear angle is with respect to the direction the shaft is moving when it's cutting which is shown by 44 in Figure 6B. With respect to the annotated Figure 3 of Johansson from the current Office Action, the plane AX1 indicated by the Examiner would have to be rotated counterclockwise such that it intersects AX2. It should also be noted that the direction of cutting with respect to annotated Figure 3 of Johansson is in the clockwise direction, i.e., the opposite direction of the drawing of Figure 6B. Thus the shear angle or the angle between AX1 and the plane of the cutting element is a positive shear angle. Since Johansson does not include each and every limitation of amended independent claims 1 and 20, Applicants respectfully assert that the 102 rejection is improper and must be withdrawn. Claims 2-18 and 21-32 are ultimately dependent upon allowable claims 1 and 20. Therefore for the reasons set forth above and based on their own merits Applicants respectfully assert that claims 2-18 and 21-32 are also allowable.

Amended independent claim 20 sets forth a backspot facing tool having a shaft and a cutting element. The shaft has a first end and a second end and a recess located near the first end. The shaft has an outer circumference and is centered on a first axis. The cutting element has an inner portion and an outer portion. The cutting element is pivotally coupled to the shaft and is movable between a closed position and an open

position. The backspot facing tool is adapted to be rotated in a first direction to remove material from a workpiece and to pivot toward the closed position when the backspot facing tool is rotated in a second direction. The second direction is opposite the first direction. The cutting element exhibits and over-center cam action to initiate movement of the cutting element towards the closed position when the backspot facing tool is rotated in the second direction. The cutting element has an intermediate position between the open position and the closed position. The outer portion has an edge. The over-center action is achieved by a distance from the edge to the first axis when the cutting element is in the open position being shorter than the distance when the cutting element is in the intermediate position. This limitation is not taught nor suggested by Johannson. Therefore Applicants respectfully assert that amended independent claim 20 is allowable over Johannson.

Claims 19 and 33-48 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Johannson. This rejection is respectfully traversed. Claims 19 and 33 are ultimately dependent upon allowable independent claims 1 and 20, respectively. Therefore for the reasons set forth above and based on their own merits Applicants respectfully assert that claim 19 and 33 are allowable over Johannson.

Independent claim 34 has been amended to more clearly identify the subject matter Applicants regard as the invention. Amended independent claim 34 sets forth a backspot facing tool having a shaft and a cutting element. The shaft has a first end and a second end and a recess located near the first end. The shaft has an outer circumference and is centered on a first axis. The cutting element has an inner portion and an outer portion. The cutting element is pivotally coupled to the shaft and is movable between a closed position and an open position. The cutting element includes an outer edge and is movable to an intermediate position between the open and closed positions. The outer edge inscribes a first circle when the cutting element is in the open position and a second circle when the cutting element is in the intermediate position. The first circle has a smaller diameter than the second circle. The first and second circle are concentric and are centered on the first axis. This is more clearly shown in amended Figures 6B and 6C. Such a relationship is not shown or taught or suggested by Johannson. Therefore Applicants respectfully assert that amended claim 34 is allowable over Johannson and

Applicant: Mike C. Burr
Serial No.: 10/734,052
Group Art Unit: 3722

request that the 103 rejection be withdrawn. Dependent claims 34-48 are ultimately dependent upon allowable claim 34. Therefore for the reasons set forth above and based on their own merits Applicants respectfully assert that dependent claims 34-48 are also allowable.

All of the Examiner's objections and rejections having been made moot or successfully traversed. Applicants respectfully assert that the present application is now in condition for allowance. An early Notice of Allowance is solicited.

Applicant believes that no fees are due, however, if any become required, the Commissioner is hereby authorized to charge any additional fees or credit any overpayments to Deposit Account 08-2789 in the name of Howard & Howard Attorneys.

Respectfully submitted

HOWARD & HOWARD ATTORNEYS, P.C.

May 25, 2006

Date

/James R. Yee/

James R. Yee, Registration No. 34,460
The Pinehurst Office Center, Suite #101
39400 Woodward Avenue
Bloomfield Hills, Michigan 48304
(248) 723-0349